



# SEQUENCE LISTING

ARMACEK, MICHAEL S.  
SOLWAY, JULIAN

<120> PROMOTER FOR SMOOTH MUSCLE CELL EXPRESSION

<130> ARCD:333-1

<140> 09/381,750

<141> 2001-02-25

<150> PCT/US97/16204

<151> 1997-08-29

<150> 09/380,928

<151> 1999-09-09

<150> 08/726,807

<151> 1996-10-07

<150> 60/004,868

<151> 1995-10-05

<160> 51

<170> PatentIn Ver. 2.1

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Primer

<400> 1

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tcagaccatc aggtgtgata gcagttgtct ttaaccctaa ccctgagcct gtctcacctg 480
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aggatctttc acgataagga ctattttgaa gggagggagg gtgacactgt cctagtcctc 600
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ccttgaggtt tcctttgtcg ggccaaactc tagaatgcct ccccttttct ttctcattga 1020
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<222> (866)..(967)

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Primer

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Ser Tyr Gly Met Ser Arg Glu Val Gln Ser Lys Ile Glu Lys Lys Tyr
          10           15           20

gac gag gag ctg gag gag cga cta gtg gag tgg att gta gtg cag tgt 151
Asp Glu Glu Leu Glu Glu Arg Leu Val Glu Trp Ile Val Val Gln Cys
          25           30           35

ggc cct gat gta ggc cgc cca gat cgt ggg cgc ctg ggc ttc cag gtg 199
Gly Pro Asp Val Gly Arg Pro Asp Arg Gly Arg Leu Gly Phe Gln Val
          40           45           50

tgg ctg aag aat ggt gtg gtgagtaacc cttgcgaagg gaatctaggg 247
Trp Leu Lys Asn Gly Val
          55           60

atgtgtatgc cgccctacaa actgtgagac agactccctg agctgagtgt tcagttgtgt 307

tctgtacctg gcag att ctg agc aaa ttg gtg aac agc ctg tat cct gag 357
          Ile Leu Ser Lys Leu Val Asn Ser Leu Tyr Pro Glu
          65           70

gga tcg aag cca gtg aag gtg cct gag aac cca ccc tcc atg gtc ttt 405
Gly Ser Lys Pro Val Lys Val Pro Glu Asn Pro Pro Ser Met Val Phe

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75

80

85

aag cag atg gaa cag gtg gct caa ttc ttg aag gca gct gaa 447  
 Lys Gln Met Glu Gln Val Ala Gln Phe Leu Lys Ala Ala Glu  
 90 95 100

gattatggag tcatcaagac tgacatgttc cagactgttg acctctatga aggtataagg 507

aaaaaagggc tggagccagt gggcgagtgg agagcaagat tatcagtcaa ggagaaggaa 567

tatcaaaagc cacaaccagc tctgttgatg tgttcatagc aggaatggga tatgccaaaga 627

gaacacatag caagggggacc agcttggtgg tacagcattt ccttctgggt acaagggcct 687

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gggcaggtat tgcctatatg gtcttgaaat tagctccctg gccactcttc tcataggt 865

aag gat atg gca gca gtg cag agg act cta atg gct ttg ggc agt ttg 913  
 Lys Asp Met Ala Ala Val Gln Arg Thr Leu Met Ala Leu Gly Ser Leu  
 105 110 115

gct gtg acc aaa aac gat gga aac tac cgt gga gat ccc aac tgg ttt 961  
 Ala Val Thr Lys Asn Asp Gly Asn Tyr Arg Gly Asp Pro Asn Trp Phe  
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 Met Lys  
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<211> 60

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
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 20 25 30  
 Trp Ile Val Val Gln Cys Gly Pro Asp Val Gly Arg Pro Asp Arg Gly  
 35 40 45  
 Arg Leu Gly Phe Gln Val Trp Leu Lys Asn Gly Val  
 50 55 60

<210> 4

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Peptide

<400> 4

Ile Leu Ser Lys Leu Val Asn Ser Leu Tyr Pro Glu Gly Ser Lys Pro  
1 5 10 15  
Val Lys Val Pro Glu Asn Pro Pro Ser Met Val Phe Lys Gln Met Glu  
20 25 30  
Gln Val Ala Gln Phe Leu Lys Ala Ala Glu  
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<210> 5

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Peptide

<400> 5

Lys Asp Met Ala Ala Val Gln Arg Thr Leu Met Ala Leu Gly Ser Leu  
1 5 10 15  
Ala Val Thr Lys Asn Asp Gly Asn Tyr Arg Gly Asp Pro Asn Trp Phe  
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Met Lys

<210> 6

<211> 575

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<213> Artificial Sequence

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<221> CDS

<222> (28)..(168)

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<223> Description of Artificial Sequence: Synthetic  
Primer

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Lys Ala Gln Glu His Lys Arg Asp Phe  
1 5

aca gac agc caa ctg cag gag ggg aag cac gtc att ggc ctt caa atg 102  
Thr Asp Ser Gln Leu Gln Glu Gly Lys His Val Ile Gly Leu Gln Met  
10 15 20 25

ggc agc aac aga gga gcc tcg cag gct ggc atg aca ggc tat ggg cga 150  
Gly Ser Asn Arg Gly Ala Ser Gln Ala Gly Met Thr Gly Tyr Gly Arg  
30 35 40

ccc cgg cag atc atc agt tagaaagga aggccagccc tgagctgcag 198  
Pro Arg Gln Ile Ile Ser  
45

catcctgctt agcctgcctc acaaatgcct atgtaggttc ttagccctga cagctctgag 258  
gtgtcactgg gcaaagatga ctgcacatgg gcagctccca cctatcctta gcctcagccc 318  
agcatcttac cccagagcca ccaactgccct ggccccctgtt cccagctgta cccccacctc 378  
tactgttcct ctcatcctgg agtaagcagg gagaagtggg ctggggtagc tggctgtagg 438  
ccagcccact gtccttgata tcgaatgtcc tttgaaggag acccagccca gcctctacat 498  
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<211> 47  
<212> PRT  
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<223> Description of Artificial Sequence: Synthetic  
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20 25 30  
Gln Ala Gly Met Thr Gly Tyr Gly Arg Pro Arg Gln Ile Ile Ser  
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<210> 8  
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<222> (77)..(679)

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ccttctctgc ctcaac atg gcc aac aag ggt cca tcc tac ggc atg agc cga 112  
 Met Ala Asn Lys Gly Pro Ser Tyr Gly Met Ser Arg  
 1 5 10

gaa gtg cag tcc aaa att gag aag aag tat gac gag gag ctg gag gag 160  
 Glu Val Gln Ser Lys Ile Glu Lys Lys Tyr Asp Glu Glu Leu Glu Glu  
 15 20 25

cga cta gtg gag tgg att gta gtg cag tgt ggc cct gat gta ggc cgc 208  
 Arg Leu Val Glu Trp Ile Val Val Gln Cys Gly Pro Asp Val Gly Arg  
 30 35 40

cca gat cgt ggg cgc ctg ggc ttc cag gtg tgg ctg aag aat ggt gtg 256  
 Pro Asp Arg Gly Arg Leu Gly Phe Gln Val Trp Leu Lys Asn Gly Val  
 45 50 55 60

att ctg agc aaa ttg gtg aac agc ctg tat cct gag gga tcg aag cca 304  
 Ile Leu Ser Lys Leu Val Asn Ser Leu Tyr Pro Glu Gly Ser Lys Pro  
 65 70 75

gtg aag gtg cct gag aac cca ccc tcc atg gtc ttt aag cag atg gaa 352  
 Val Lys Val Pro Glu Asn Pro Pro Ser Met Val Phe Lys Gln Met Glu  
 80 85 90

cag gtg gct caa ttc ttg aag gca gct gaa gat tat gga gtc atc aag 400  
 Gln Val Ala Gln Phe Leu Lys Ala Ala Glu Asp Tyr Gly Val Ile Lys  
 95 100 105

act gac atg ttc cag act gtt gac ctc tat gaa ggt aag gat atg gca 448  
 Thr Asp Met Phe Gln Thr Val Asp Leu Tyr Glu Gly Lys Asp Met Ala  
 110 115 120

gca gtg cag agg act cta atg gct ttg ggc agt ttg gct gtg acc aaa 496  
 Ala Val Gln Arg Thr Leu Met Ala Leu Gly Ser Leu Ala Val Thr Lys  
 125 130 135 140

aac gat gca aac tac cgt gga gat ccc aac tgg ttt atg aag aaa gcc 544  
 Asn Asp Gly Asn Tyr Arg Gly Asp Pro Asn Trp Phe Met Lys Lys Ala  
 145 150 155

cag gag cat aag agg gac ttc aca gac agc caa ctg cag gag ggg aag 592  
 Gln Glu His Lys Arg Asp Phe Thr Asp Ser Gln Leu Gln Glu Gly Lys  
 160 165 170

cac gtc att ggc ctt caa atg ggc agc aac aga gga gcc tcg cag gct 640  
 His Val Ile Gly Leu Gln Met Gly Ser Asn Arg Gly Ala Ser Gln Ala  
 175 180 185

ggc atg aca ggc tat ggg cga ccc cgg cag atc atc agt tagaaaggga 689  
 Gly Met Thr Gly Tyr Gly Arg Pro Arg Gln Ile Ile Ser  
 190 195 200

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 acccagccca gcctctacat cttttcctgg aatatgtttt tgggttgaaa ttcaaaaagg 1049  
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<211> 201

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
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Trp	Ile	Val	Val	Gln	Cys	Gly	Pro	Asp	Val	Gly	Arg	Pro	Asp	Arg	Gly	35	40	45	
Arg	Leu	Gly	Phe	Gln	Val	Trp	Leu	Lys	Asn	Gly	Val	Ile	Leu	Ser	Lys	50	55	60	
Leu	Val	Asn	Ser	Leu	Tyr	Pro	Glu	Gly	Ser	Lys	Pro	Val	Lys	Val	Pro	65	70	75	80
Glu	Asn	Pro	Pro	Ser	Met	Val	Phe	Lys	Gln	Met	Glu	Gln	Val	Ala	Gln	85	90	95	
Phe	Leu	Lys	Ala	Ala	Glu	Asp	Tyr	Gly	Val	Ile	Lys	Thr	Asp	Met	Phe	100	105	110	
Gln	Thr	Val	Asp	Leu	Tyr	Glu	Gly	Lys	Asp	Met	Ala	Ala	Val	Gln	Arg	115	120	125	
Thr	Leu	Met	Ala	Leu	Gly	Ser	Leu	Ala	Val	Thr	Lys	Asn	Asp	Gly	Asn	130	135	140	
Tyr	Arg	Gly	Asp	Pro	Asn	Trp	Phe	Met	Lys	Lys	Ala	Gln	Glu	His	Lys	145	150	155	160
Arg	Asp	Phe	Thr	Asp	Ser	Gln	Leu	Gln	Glu	Gly	Lys	His	Val	Ile	Gly	165	170	175	
Leu	Gln	Met	Gly	Ser	Asn	Arg	Gly	Ala	Ser	Gln	Ala	Gly	Met	Thr	Gly	180	185	190	
Tyr	Gly	Arg	Pro	Arg	Gln	Ile	Ile	Ser											

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<223> Description of Artificial Sequence: Synthetic  
Primer

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<210> 11  
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<400> 11  
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<210> 12  
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<212> DNA  
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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 12  
tgccgtagga tggacccttg ttggc 25

<210> 13  
<211> 10  
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Primer

<400> 13  
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<210> 14



<211> 10  
<212> DNA  
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Primer

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<210> 15  
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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 15  
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<210> 16  
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<212> PRT  
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Peptide

<400> 16  
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<210> 17  
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<223> Description of Artificial Sequence: Synthetic  
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<400> 17  
Lys Arg Gly Gly Cys Lys Arg Arg Lys  
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<210> 18  
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<223> Description of Artificial Sequence: Synthetic Peptide

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<210> 19

<211> 8

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic Peptide

<400> 19

Met Ile Arg Ile Cys Arg Lys Lys

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<210> 20

<211> 381

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic Primer

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aagagcagac ccaagtccgg gtaacaagga aggggttcag ggtcctgccc ataaaagggtt 180  
tttcccggcc gccctcagca ccgccccgcc ccgacccccg cagcatctcc aaagcatgca 240  
gagaatgtct ccggctgccc ccgacagact gctccaactt ggtgtcttcc cccaaatatg 300  
gagcctgtgt ggagtgagt gggcggcccg ggggtggtgag ccaagcagac ttccatgggc 360  
agggaggggc gccagcggac g 381

<210> 21

<211> 47

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic Primer

<400> 21

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<210> 22

<211> 47  
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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 22  
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<210> 23  
<211> 43  
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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 23  
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<210> 24  
<211> 43  
<212> DNA  
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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 24  
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<210> 25  
<211> 37  
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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 25  
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<210> 26  
<211> 37  
<212> DNA  
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<223> Description of Artificial Sequence: Synthetic  
Primer

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37

<210> 27  
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<212> DNA  
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<223> Description of Artificial Sequence: Synthetic  
Primer

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<210> 28  
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<223> Description of Artificial Sequence: Synthetic  
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<210> 29  
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<223> Description of Artificial Sequence: Synthetic  
Primer

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<210> 30  
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<212> DNA  
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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 30  
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44

<210> 31  
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Primer

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<210> 32  
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Primer

<400> 32  
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<210> 33  
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Primer

<400> 33  
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<210> 34  
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Primer

<400> 34  
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<210> 35  
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Primer

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37

<210> 36

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<212> DNA

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Primer

<400> 36

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29

<210> 37

<211> 26

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<223> Description of Artificial Sequence: Synthetic  
Primer

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26

<210> 38

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Primer

<400> 38

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47

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Primer

<400> 39  
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<210> 40  
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Primer

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Primer

<400> 41  
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<400> 42  
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<400> 44  
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<210> 46  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 47  
ccwwwwwcc 10

<210> 48  
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<220>

<223> Description of Artificial Sequence: Synthetic  
Primer

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45

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<223> Description of Artificial Sequence: Synthetic  
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<223> Description of Artificial Sequence: Synthetic  
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<400> 51

ccatatatgg

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